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AUTHOR Taylor, Peter Charles; Dawson, Vaille
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ABSTRACT

The supportive role of the research supervisor in an action research study is explored. This critical account of a relationship between a research supervisor and a postgraduate research student was prompted by a sense of disquiet and lack of harmony that developed during a year-long action research study. In the role of a teacher-researcher with a critical constructivist perspective, the student had attempted to transform radically the epistemology of her Year 10 Bioethics class. Despite the supervisor's emancipatory intentions, the student felt that she was being disempowered as a result of his demands to conform to normative expectations and standards. Drawing on the student's dissertation and reflective journal, and on their subsequent separate writings, the student and supervisor jointly conducted a critical inquiry into the problematic aspects of their relationship. The writings of J. Habermas and feminist scholars assisted with their new understandings of the need for a rich communicative student-supervisor relationship, especially in situations where the student is undertaking emancipatory action research and the supervisor wishes to adopt a collaborative research role. (Author/SLD)

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Critical Research Supervision? Deconstructing a Disempowering Myth!

Peter Charles Taylor & Vaille Dawson

National Key Centre for School Science and Mathematics
Curtin University of Technology
Perth, Australia

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Critical Research Supervision?
Deconstructing a Disempowering Myth!

Peter Charles Taylor & Vaille Dawson

In identifying mythical elements in our own cultural or professional assumptions, we threaten our ethnocentric self-confidence. We discover a psychic dimension which recognises the power of myth and unconscious desire as forces, not only in history, but in shaping our own lives. We open up a history which . . . pivots on the active relationship between past and present, subjective and objective, poetic and political.

[Samuel & Thompson, 1990, p. 5]

Abstract

The supportive role of the research supervisor in an action research study is the focus of this chapter. This critical account of a relationship between a research supervisor and a postgraduate research student was prompted by a sense of disquiet and lack of harmony that developed during a year-long action research study. In the role of a teacher-researcher with a critical constructivist perspective, the student had attempted to transform radically the epistemology of her Year 10 Bioethics class. Despite the supervisor's emancipatory intentions, the student felt that she was being disempowered as a result of his demands to conform to normative expectations and standards. Drawing on the student's dissertation and reflective journal, and on their subsequent separate writings, the student and supervisor conducted jointly a critical inquiry into the problematic aspects of their relationship. The writings of Habermas and feminist scholars assisted with their new understandings of the need for a rich communicative student-supervisor relationship, especially in situations where the student is undertaking emancipatory action research and the supervisor wishes to adopt a collaborative research role.

Introduction

Two years ago, we completed a student-supervisor relationship that, on the surface, appeared to have been very successful. Peter's supervision of Vaille's research study had culminated in her being awarded a Masters degree with distinction and an Australian Postgraduate Award to study for a Doctorate. However, because of our mutual professional concern with ensuring that relations between teachers and students are not disempowering of students (or, for that matter, of teachers), we believe it essential to judge success not only in terms of the achievement of predetermined academic goals but also by taking into account the quality of the day-to-day student-teacher relationship. By presenting this account of our joint inquiry into the rough-and-tumble of our own student-supervisor relationship we hope to convince the reader of the importance of the supervisor and student adopting collaboratively a critical perspective and examining deeply hidden beliefs that can reinforce cultural stereotypes and sustain relations of domination.

The way we have chosen to render this critical account of our student-supervisor relationship is somewhat unusual for the field of mathematics and science education. Within our joint account, which represents our present standpoint and which frames the chapter, our authorial voices can be heard speaking sometimes individually and sometimes collectively. Elsewhere, our 'historical' selves of two years ago are represented by our individual voices speaking independently. Because we wish to

emphasise the conceptual distance between our past and present perspectives, a distance born of considerable critical self-reflection and reciprocal negotiation, we have chosen pseudonyms (i.e., Joanne, Philip) when we give voice to our earlier selves, particularly in the section in which we discuss the conflicts of interest that occurred between us during our student-supervisor relationship. This writing approach is familiar to historians and cultural anthropologists for whom 'narrative form' and 'autobiography' are commonplace research methods and modes of representation recognised for their power to convey personal experiences (Bruner, 1990; Clandinin & Connelly, 1994; Geertz, 1983; Samuel & Thompson, 1990).

We conducted our inquiry as an interpretive research study (Erickson, 1986) whose starting point was a critical event in our student-supervisor relationship. Initially, we wrote separate interpretive accounts of the way we experienced our student-supervisor relationship, accounts that we shared with each other, presented at conferences, and submitted to colleagues and friends (Dawson, 1995; Taylor, 1994, 1995). As we reflected on the critical commentary that poured in our direction (some thought our writings too personal, too emotional, too naive, too partial), our understandings deepened. Our readings of feminist literature encouraged us to continue with our learning. Belenky et al's (1986) research on women's ways of knowing helped Vaille to understand better the nature of the emotional struggle to transform her own epistemology. An article written by Elizabeth Ellsworth (1992) in which she explored the repressive myths of her own supposedly critical pedagogy was a turning point in Peter's understanding of his own epistemology. Jurgen Habermas' 'theory of communicative action' (Pusey, 1987) and Nell Noddings' (1984) book on caring and ethics took us forward, beyond critique, into a space of new horizons containing compelling possibilities for developing rich communicative relationships. In doing this, we were motivated to learn how to improve our own future research relationship and to tease out possible significances for other supervisors and students who might hold similar research interests.

But what of the epistemology that shaped our inquiry? We had combined key elements of Ernst von Glasersfeld's 'radical constructivism' (1990, 1993) and Jurgen Habermas's theory of 'knowledge and human interests' (McCarthy, 1985; Pusey, 1987) to form a 'critical constructivist' perspective (Dawson, 1994; Taylor, in press). From this perspective, our knowledge (including scientific and mathematical knowledge) is a human construct, rather than an objective entity, and we gauge its viability (or usefulness) by seeing how well it helps us to understand and predict aspects of both our physical and social environments.

In this account of our student-supervisor relationship we reveal the shortcomings of our critical constructivist epistemology, particularly the way that a strong emphasis on the 'emancipatory' goal of student empowerment seemed to 'backfire'. Rather than abandon this epistemology, however, we have learned how it can be strengthened. Our inquiry has led us to the realisation that the emancipatory goal is not an end in its own right; rather, it should serve the 'practical' goal of establishing a rich communicative relationship between the research supervisor and research student. Ironically it was this realisation that, subsequently, enabled us to develop a communicative relationship of such richness that we were able to pursue our critical self-reflective inquiry in a climate of mutual trust and respect.

The Research Student

At the beginning of 1994, I was about to commence my third year as a teacher of high school science and my final year as a postgraduate student enrolled part-time in a Masters degree program at Curtin University. At school, I had been teaching a course on Bioethics that I had responsibility for designing, teaching and assessing. In this 10-week course I aimed to enable students to understand the way medical science practices are

governed by human values, particularly ethical values, and to become more aware of their own valued beliefs and ethical standards. However, the resource materials that I had been using in class were designed to convey factual information, rather than enable students to explore their own personal experiences about issues that they insisted on raising in class. As I was drawn deeper into responding to students' passionate appeals and queries I began to reconsider my somewhat didactic approach to teaching.

During my studies at Curtin in the previous year, I had become familiar with contemporary learning theories that argued for teaching approaches that empowered students to take responsibility for their own learning. Chief amongst these were 'constructivist' theories of knowledge (Bodner, 1986; Driver, 1990; von Glasersfeld, 1989) and the 'emancipatory' goal of reflecting self-critically on curricula-related assumptions and hidden beliefs that governed teachers' and students' classroom roles (Grundy, 1987). I also had become attracted to action research (Kemmis & McTaggert, 1988), an approach that enables the teacher to adopt the role of researcher and investigate ways of improving their own teaching practice.

In Peter's course on learning and curriculum studies, I had experienced first-hand the joys and frustrations of becoming an empowered learner. I was 'forced' to accept responsibility for my own learning by participating in the design of learning activities, examining critically my valued beliefs about learning, negotiating new valued understandings with fellow students, being subjected to peer assessment, and presenting evidence of my own learning in a portfolio. As a result, I came to realise that my Bioethics course had similar student empowerment goals, although I had not expressed them previously in these terms.

With only the research component of the course remaining, I was keen to investigate how my newly developing ideas about learning might enable me to empower my own students. I decided to undertake an 'emancipatory action research' study of my Year 10 Bioethics classes. I planned to introduce innovative teaching strategies based on a constructivist epistemology that would engage students in reflecting critically on their own ethical beliefs and personal experiences, negotiating new meanings and understandings in small-group problem-solving activities and whole class discussions, and participating with me and their peers in the design of their own learning activities. However, I did not intend to abandon entirely my former teaching approach because I recognised an important role for me in continuing to present new information, pose challenging ethical dilemmas, and stimulate students' own inquiries.

At the beginning of 1994, I approached Peter and invited him to supervise my research study. My previous experience of supervisors in the field of medical research was that often they were aloof, busy, disinterested (unless it could be published) and authoritarian. With some trepidation, I sought Peter's assurance that his perspective on the value of empowering students would extend to our student-supervisor relationship, and was very pleased that he gave me this undertaking.

The Research Supervisor

Prior to supervising Vaille's research study, I had been exploring collaboratively with school teachers the feasibility of creating constructivist learning environments in their high school mathematics classrooms (Taylor, 1992, 1993; Taylor, Fraser, & White, 1994). This research had led me to understand that, notwithstanding teachers' reform-minded zeal, the transformation of teacher-centred classrooms into learning environments that give priority to students' self-determination and conceptual development can be highly problematic.

By developing an epistemological perspective — 'critical constructivism' — shaped by ideas drawn from radical constructivism (von Glasersfeld, 1990, 1993), cultural anthropology (Britzman, 1991; Geertz, 1973; Samuel & Thompson, 1990) critical theory (Giroux, 1981; Grundy, 1987; McCarthy, 1985; Pusey, 1985), and the philosophy of science and mathematics (Davis & Hersch, 1986; Ernest, 1991; Kuhn, 1962; Toulmin, 1972), I had come to understand how well-established cultural forces designed to maintain the existing social order can work in concert to neutralise winds of change.

My research illustrated how powerful cultural 'myths', or deep-seated sets of valued normative beliefs, are communicated unknowingly in the daily discourses of teachers and students (Milne & Taylor, 1995; Taylor, in press). Such discourses interweave into an apparently seamless tapestry the official language of the discipline (i.e., science, mathematics) with a powerful language of socialisation. The invisibility of myth (rooted in the collective unconscious) strengthens its pervasiveness and can cause teachers to abandon their seemingly 'unnatural' reform ideals, especially when they threaten the existing social order of their institution. In school science and mathematics, the repressive myths of 'hard control' and 'cold reason' can combine to create a powerful illusion that teacher control, symbolic deductive logic, and objective knowledge are natural ways of understanding the role of teachers, the act of thinking, and the status of knowledge, respectively.

Because of my interest in empowering teachers to contest the legitimacy of repressive myths that govern their teaching, I have a commitment to modelling this transformative practice in my own teaching. One of the main ways that I endeavour to do this is by creating a classroom environment based on the emancipatory goal of enabling students to reflect critically on their deep-seated beliefs about what it means, in practice, for them to become empowered learners. Two important emancipatory conditions are freedom from external constraints (such as the self-serving coercion and manipulation exerted by others) and from internal constraints (such as our own distorted or 'false' consciousness). In the teaching that Vaille had experienced in my classes, I had construed empowered learning largely in terms of the emancipatory goal of a critical self-reflective awareness of the cultural myths that govern students' images of themselves as learners. In the previous section, Vaille describes briefly some of my teaching strategies.

I was delighted by Vaille's request that I supervise her action research study, a study that offered the prospect of extending emancipatory learning goals into school science. Because we both valued the idea of student empowerment, it seemed natural that our student-supervisor relationship be free of the coerciveness that can result from asymmetrical power relations, particularly 'deficit' relationships based on the uncontested assumption of teacher as expert and student as novice. At Vaille's behest, I agreed to a student-supervisor relationship based on the principle of equity and saw my role as a consultant rather than a controller or director. Later, however, the following event caused me to reflect critically on my assumptions about the nature of student empowerment and my role as a research supervisor.

A Critical Event

The starting point of our inquiry is a critical event that occurred shortly after Vaille's dissertation had been examined successfully in December 1994. Having witnessed Vaille's escalating frustration over the writing of her dissertation, Peter wanted to understand what had gone wrong with their student-supervisor relationship. Why had they not achieved the goal of student empowerment they had agreed upon at the beginning of the year?

Peter explained to Vaille that he was seriously intent on improving his own supervisory practice and that he would value any insights that she might care to offer about the

extent to which she felt that his attempts to be persuasive, especially in regard to her writing, had seemed to be coercive. Vaille replied that, indeed, she had felt very coerced by him on several occasions, and that she would provide him with selected extracts of her personal journal. A 'can of worms' had been opened! Perhaps the following extract best summarises Vaille's feelings on the matter:

> It really is impossible [for you] to be emancipatory and non-coercive. You have all the power. It's the same way with my students. They go through my hoops and I go through yours. [Journal, Oct 1994]

The evidence from Vaille's journal caused us to construct the following interpretive research question:

> Why didn't the critical constructivist pedagogy of our student-supervisor relationship feel empowering?

Conflicts of Interest

Many factors are likely to impinge on the success of an emancipatory action research study, especially factors associated with the restraining culture of the school (such as countervailing expectations of students, colleagues and administrators). The greater the teacher-researcher's attempts to transform the culture of their classroom, the greater the resistance she is likely to experience, especially when teacher-researchers are 'going it alone' in solo efforts at pedagogical reform. Such was the case with Vaille's emancipatory action research study. In this chapter, however, we do not focus on the culture of the school as a source of disempowerment. Rather, we focus largely on the student-supervisor relationship that occurred, for the most part, within the precinct of the university.

The following recollection presents our joint account of three areas in which major conflicts of interest seemed to occur in our relationship. When we present here the 'historical' perspectives that we held in 1994, perspectives that are recorded in our earlier separate writings, we use pseudonyms (Joanne, Philip) and indent the passages. Elsewhere in this section, we frame these historical perspectives with the explanatory and interpretive commentary of our present perspectives.

Theory and Authority

Traditionally, the research student's construction of a theoretical framework for their study is regarded as an essential preliminary step, one that should precede and shape data collection activities. In much research, particularly scientific laboratory-based research, it is customary for students to 'slot into' an existing research program and to adopt unquestioningly the extant theoretical framework of the research supervisor. Thus the student's theoretical framework rests almost entirely on the established authority of the research supervisor.

In emancipatory action research, however, the authority of the teacher-researcher's professional experience is central to the research process. The goal of action research is for the teacher to improve their own teaching practice by identifying and solving a problem of their own choosing. Although this involves regarding as problematic an aspect of their professional authority, if the teacher-researcher is not to be disempowered then it is important that they have ultimate responsibility for identifying (and therefore owning) whichever aspect of their teaching practice they regard as in need of improvement. Thus the teacher-researcher's professional authority is foregrounded within the context of the research study as uniquely valuable and worthy of respect, yet problematic.

But what of the authority of the supervisor, an authority based on special understandings of educational theory and research? Educational theory does have an important role in all aspects of the action research process, especially theory about the doing of research. The research supervisor has an important role in drawing on the authority of their own expertise to enable the teacher-researcher to develop knowledge and skills in matters such as: determining an appropriate epistemology for the research, articulating feasible research questions, designing sound techniques for generating and analysing data, reporting the research to multiple audiences, and selecting and applying appropriate standards for judging the quality of the research process; but, most importantly, not at the expense of the teacher-researcher's own professional authority.

Indeed, action research was conceived as a means of facilitating a much closer nexus between educational theory ('out there') and the teacher-researcher's ongoing theorising about their own teaching practice. One of the most important outcomes of an action research study is the ability of the teacher-researcher to theorise, with an enhanced sense of professional authority, about the practicalities of their own teaching practice. However, as the following vignettes from the case of Philip and Joanne illustrates, the research supervisor's role in enhancing the authority of the teacher-researcher can be problematic, especially when the teacher-researcher undergoes a radical transformation of their epistemology.

Philip's Perspective

From the outset of our student-supervisor relationship, Joanne requested that I help her to develop a better understanding of constructivism. Although she seemed to be attracted by what she had learned already about constructivism, she had only a tenuous grasp of constructivist theory. She asked me for a clear explanation.

Despite the temptation to do so, I was reluctant simply to 'stamp my brand' of critical constructivism on Joanne. Rather, I wanted her to continue constructing her own understanding by discussing with me her ideas as she read the literature and reflected critically on the epistemology that underpinned her own teaching. I recommended further readings, including my own papers, and invited her to meet with me on a weekly basis to discuss the development of her action research study.

In those early weeks, I engaged Joanne in a discourse that, I believed, would enable her to test the viability of her growing understanding of constructivist theory. I attempted to 'steer' her towards a sound understanding of the central principles of constructivism (that distinguish it from objectivism) while allowing her the 'space' to decide on practical implications for her own teaching. At the time, I believed that this approach would result in Joanne's development of a more meaningful understanding than was possible had I explained (or 'transmitted'!) the complexities of my own constructivist perspective.

Indeed, I believed my research supervision practice constituted an actual modelling of a critical constructivist pedagogy. I focused my attention on Joanne's current and developing understandings of constructivist theory, endeavoured to negotiate the viability of her emerging ideas, and strove to empower her by respecting her right to make her own pedagogical decisions. I also held firm to the principle that she should not adopt unquestioningly my own theoretical perspective on the basis of its implied authority.

Joanne's Perspective

In the early weeks of planning my action research study, I frequently asked Philip about his views on constructivism as a means of shaping my own emergent ideas. However, he seemed to behave as though constructivism was some mystical secret where the uninitiated must pass through certain 'rites of passage' in order to understand. Although I read Philip's papers on constructivism, I could not always understand the language. I didn't want a sanitised version. I wanted a person-to-person view. In my journal I wrote at the time:

> I feel you have such a profound belief in constructivism that we have never really discussed its merits. It is taken as a given. [Journal, Nov 1994]

By not disclosing his beliefs and, more importantly, his doubts about his beliefs, I felt that Philip, who I considered to be an authority on constructivism was absolutely dedicated to the notion of constructivism. I felt that I could not raise for discussion my own doubts.

My feelings of disquiet increased as I struggled with my own evolving thoughts. I conceded the failings of an impersonal objectivist stance when considering issues. What I could not counter, however, was the free-fall feeling I encountered when I thought from a constructivist perspective. It was like stepping off concrete into quicksand.

Whenever I felt threatened, I clambered back onto the firm surface of my previous 'separate knower' way of thinking described by Belenky et al. (1986). A separate knower is one who suppresses their subjectivity in favour of the impersonal authority of an objectivist view of the world. As a science student at university and, then, as a medical research scientist, I had been used to factual knowledge legitimated by authorities such as text books, teachers and research supervisors. This was a very familiar way of knowing and acting for me, but it was a way that was being contested by constructivism.

While Philip was being careful to avoid imposing his own epistemology, Joanne was experiencing a growing sense of disempowerment because she felt that she was expected to adopt a compliant 'guess what's in my mind' role. How can we understand this outcome which is clearly contrary to the empowering goals of emancipatory action research ostensibly shared by both the student and the supervisor?

From a rereading of Habermas, especially his 'theory of communicative action' (Pusey, 1987), the emancipatory goal of empowerment is to create equality of opportunity for participants in a relationship to achieve the 'practical' goal of a type of ethically sound communication that aims to achieve reciprocal understanding of intentions, goals, and meaning-perspectives. Bakhtin (1981) calls this a 'dialogical' discourse, that is, communication that aims to create a rich mutual understanding of each other's point of view or valued beliefs without either party feeling obliged to adopt the other's position simply because of a power imbalance in the relationship. Indeed, because a dialogical understanding can embrace opposing or conflicting beliefs, it serves to enhance the 'less powerful' participant's sense of agency as a rational thinker, actor, and communicator.

What we learn from the case of Philip and Joanne is that a dialogical discourse between a research supervisor and student doesn't happen merely as a result of avoidance action. The supervisor's attempts not to engage his student in a 'monological' discourse, that is, a discourse that legitimates only the 'more powerful' participant's epistemology,

resulted in what we might call a 'null' discourse that prevented both parties from understanding one another's individual perspectives and mutual interests.

Furthermore, in his attempts to foster the student's sense of authority in herself as a teacher-researcher, an authority associated with assuming responsibility for reconstructing both her own epistemology and teaching practice, the research supervisor seems to have lost sight of the importance of developing a supportive relationship and sharing responsibility for, what amounted to, a radical transformation of the student's epistemology. With his focus on the long-term goal of student empowerment, a mutually shared (but differently constructed) goal, the supervisor overlooked the importance of a 'duty of care' toward a student (Noddings, 1984) who would, in the short-term, need to draw on his authority as a source of reassurance, an authority legitimated by his professional position within the university and his own research expertise.

Voice and Ownership

The novice research student wishing to undertake interpretive or qualitative research approach faces three difficult questions, each of which has implications for the epistemological framing of their research activities: what form of representation (or genre) should I use when writing my research report?, what methods of data generation and analysis should I use?, and what standards should I use to judge the quality of my work? Unfortunately there is no simple answer to these interdependent questions.

Although there is a general preference in the field of interpretive research for a form of writing that evidences the researcher's learning (contrasting with the traditional research epistemology of the researcher as a tester of *a priori* hypotheses), there is no single best way for the interpretive researcher to represent in writing the results of their research. Amongst the eclectic range of writing genres (and their associated epistemologies) that compete for the researcher's attention — realist, confessional or impressionistic tales (van Maanen, 1988), autobiographical narratives (Bruner, 1986, 1990; Carter, 1993), poetic, imaginative or fictional stories (Barone, 1990; Eisner, 1979; Eisner & Peshkin, 1990) — the common thread is a style of writing that gives voice to the researcher's firsthand experiences in the field, a requirement that legitimates at least partial use of the 'active first-person' authorial voice.

The research supervisor is faced with a challenging task of advising the student about not only which genre (or genres) might be appropriate for framing their data generation and analyses and for reporting their study, but also which standards might be appropriate for judging the quality of their work. The challenge for the research supervisor, therefore, is to guide their student through a minefield of possibilities. Of course, this is not without its difficulties, as the following conflicting perspectives indicate.

Philip's Perspective

Joanne had opted for a traditional dissertation format, a format she preferred in favour of my suggested alternative format that would reflect the learning journey she had taken during her study. Given the time constraints facing her, I felt comfortable with supporting her decision. She successfully completed the early chapters (Introduction, Literature Review, Methodology) with little apparent discontent, although she had commented on the unusually large number of drafts that I required of her. My response was that this was not unusual for interpretive research studies. I told her about another of my students who recently had written 13 drafts of a results chapter for their MSc thesis!

The penultimate chapter of Joanne's dissertation was to present an account of the results of her action research study, and was to be followed by a concluding chapter that presented a brief summary of the results together with

recommendations for future research. Most of my feedback on successive drafts of the results chapter focused on the adequacy of evidence (mostly qualitative data but also questionnaire results) that Joanne had presented to substantiate the claims she was making about the efficacy of her constructivist teaching innovations.

My judgements of Joanne's writing were based on four key standards that I use in my own interpretive research (Erickson, 1986; Denzin, 1989): (1) each knowledge claim must be warranted by adequate evidence (including deliberately-sought disconfirming evidence); (2) criteria for judging the adequacy of evidence must be stated clearly (usually in a methodology chapter); (3) acknowledgement must be made of inadequacies in the evidence; and (4) evidence must be presented in a logically coherent and succinct manner. Based on these standards, I recommended, at times, major restructuring of Joanne's results chapter; at other times, I recommended changes in authorial style, expression and grammar.

Overall, my recommendations were aligned with my goal of enabling Joanne to inject into her writing a well-considered subjectivity and to achieve a high standard of qualitative analysis as sound preparation for subsequent Doctoral research. This was a future option that I wanted her to consider seriously. She had achieved outstanding grades in her coursework, and an award of 'distinction' for her dissertation would make her very competitive for a full-time Doctoral scholarship. She seemed to have a guarded interest in this prospect.

I wrote my evaluative comments in the margins of Joanne's work in a style that was somewhat terse and critical, and sometimes wrote an accompanying page of summary and recommendations. During our weekly discussions, however, and depending on how much time I had available, I attempted to be more empathetic. However, I sensed Joanne's growing displeasure with my critical commentary on her writing. Although I was familiar with this response from students undertaking interpretive research for the first time, I too felt uncomfortable and tried to be reassuring by reminding Joanne she would benefit from the experience but that the final decision to rewrite rested with her.

From my perspective, the main problem with Joanne's data analysis was its incompleteness. The analysis was presented in accordance with the *a priori* methodological structure of the study, that is, in terms of the methods used for data collection. Although this is an acceptable first way of analysing interpretive data, and often is accepted by my colleagues as an end in its own right, I see it as the beginning of a more insightful analysis in which themes emerge during the process of analysis — a process that involves successive iterations and gives rise to the construction of 'grounded theory' (Glaser & Strauss, 1967) or 'interpretive assertions' (Erickson, 1986) that infer a significance extending provisionally beyond the boundaries of the study.

However, when I suggested to Joanne (after numerous drafts of her results chapter) that she consider restructuring her partially completed analysis according to key themes rather than methods of data collection, she refused to agree. Sensing Joanne's frustration, I accepted her results chapter without further change and, a short time later, was pleasantly surprised by the high quality of her final chapter.

Joanne's Perspective

As my Master's research project developed, conflict arose over my supervisor's insistence that I adopt his academic style of writing. Initially, when I first

submitted chapter drafts to Philip I was both impressed and flattered by his careful attention to detail. However, as this process continued through successive drafts I became increasingly peeved by what I assumed was his hypercritical attitude. I was accustomed to writing papers based on a plan and one draft followed by some final editing. The problem was that, with each new draft, the work became more my supervisor's than mine. This gradual loss of voice increased my dependence on Philip for feedback as I lost touch with my original arguments. I experienced an increasing sense of powerlessness as the following extract of my journal reveals.

> When I talk to you about a corrected chapter, you never ask me about where I think the weaknesses are. You always identify them. . . . [H]aving you as a supervisor is a double-edged sword. On the one hand, the attention is good; it shows you think the project is as important as I do; it shows you care. The downside is that you have too much input. I sometimes feel it is your project or that I am a dependent passive assistant. [Journal, Oct 94]

While I merely wanted to complete my Master's degree, my perception was that Philip wanted me to produce the perfect document on his terms. Finally, after eight drafts of the results chapter, he suggested I reorganise the chapter based on issues that emerged from the data analysis. I was disconsolate! At this stage I had already expended far more time and effort on this chapter than I thought necessary. With each draft, Philip's view had further overlayed mine until I could scarcely understand what I had written. I wrote in my journal:

> There seemed to be an expectation that your wishes would be carried out. . . . From the middle of the year when I began writing, I had this feeling that I was losing touch with the project. I had the data but my interpretation was constantly overlayed by your more experienced, theory-based view. . . . You weren't nasty or bossy but I felt trapped into moving down your path. [Journal, Nov 1994]

I knew that in order to reorganise the chapter I would have to completely rewrite it. At this stage I reached a crisis point and seriously considered discontinuing my studies. On suggesting this to Philip, I was surprised that he was taken aback. I hadn't realised that he had not sensed my irritation. I felt that he had used his power over me in an academic sense to coerce me into doing his bidding. I was afraid that I would fail or not be considered for Doctoral studies if I did not follow his directions.

Nevertheless, the reader should not suppose that I was an innocent student with a manipulative supervisor. Although, on occasion I did feel like a fly trapped in a spider's web. By adopting a cloak of passivity I had found that it was easier and less emotionally draining to acquiesce and let Philip set the agenda. My sense of powerlessness was such that my thinking returned to that of a 'separate knower'. I looked to Philip as a source of authority and knowledge. He seemed to know everything. I consciously allowed my drafts to become sloppy. After all, what was the point of agonising over a word when I knew Philip would rewrite the entire sentence!

At this point, I ceased writing the results chapter, our main source of dissension and chose instead to write the final chapter. Rather than submit a first draft to Philip, I chose to do several successive drafts by myself, almost to see if I was actually capable of writing. I found that it was not difficult to edit my own work. This chapter represented a final synthesis of my data and I felt that it was

cohesive and projected my voice. My dissertation was examined and awarded an 'A' grade.

One way of resolving these conflicting perspectives is to argue that the research supervisor's approach was exemplary because the student succeeded in producing a high quality dissertation. It would follow that the painfulness of the students' writing experience was an unfortunate but 'necessary evil'. However, from the perspective of Habermas's 'theory of communicative action' (Pusey, 1987), a guiding ethic of the end justifying the means is unacceptable, especially when it dominates and distorts a communicative relationship. Although the supervisor's goal of maximising the student's opportunities to undertake future Doctoral study was laudable and ultimately might have been empowering of the student, the means of achieving this goal had the opposite effect of disempowering the student by dispossessing her of ownership of her research and by silencing her voice in her writing.

This case helps us to understand that the emancipatory goal of empowerment is not an end in itself. Rather, it serves as a means of developing human relationships that can give expression to the 'communicative' goal of rich mutual understanding based on an ethic of reciprocal care and concern of a kind advocated by Noddings (1984). When the goal of empowerment is divorced from the goal of a communicative relationship then empowerment is in danger of becoming distorted and serving the technical goal of control and, perhaps unwittingly, aiding and abetting the practice of coercive manipulation. This seems to be what happened in the case of Philip and Joanne.

Despite Philip's apparently good intentions towards Joanne, his long-term goal of student empowerment was divorced from the short-term goal of developing a communicative relationship with Joanne, a relationship that might have dissolved some of the stresses associated with her high-risk activity of transforming radically her own epistemology and teaching practice. Rather than enabling Joanne to set feasible short-term goals for her writing (while also encouraging her to consider optional long-term goals) and to develop a set of standards with which to judge the quality of her own research work, for the most part Philip maintained ownership and control over these standards and endeavoured to 'steer' Joanne towards a goal that, at the time, was largely of his own choosing and unbeknown to her.

Collaboration and Multiple Agendas

When a teacher adopts the role of a teacher-researcher and undertakes an action research study her agenda is relatively straightforward: to improve the quality of her teaching practice. When the teacher-researcher also is a student in a program of postgraduate study her agenda can become significantly more complex. Now, her action research has the additional goal of gaining credit towards a higher degree. When we consider yet another role for the teacher — 'collaborative researcher' — then the number of coincidental agendas suddenly increases by another order of magnitude.

Collaborative action research between a teacher-researcher and an 'outside' researcher has been recognised as fruitful for involving teachers in a process of pedagogical reform and for generating rich insights into the constraints on the reform process (Kyle & McCutcheon, 1984; Saphier, 1982; Shymansky & Kyle, 1991; Watt & Watt, 1982). Here, the research supervisor also has multiple agendas, including supervising the research student and conducting research activity in the teacher's classroom. Not surprisingly, perhaps, the student-supervisor relationship can become somewhat strained as multiple agendas are pursued and conflicts of interest arise. Consider the following vignettes that highlight the conflicting perspectives and goals of Joanne and Philip as they pursued their multiple teaching and research agendas.

Philip's Perspective

For some time prior to the commencement of Joanne's action research study, I had been developing a questionnaire to assist teacher-researchers undertaking constructivist teaching reforms to monitor students' perceptions of their classroom learning environments (Taylor, Fraser, & White, 1994). I wished to trial it in a classroom in which teaching was being transformed, at least partially, from a critical constructivist perspective.

Joanne's emancipatory action research study offered an unrivalled opportunity to trial the questionnaire which comprised scales that seemed pertinent to Joanne's stated teaching goals of stimulating students' small-group work, devolving control of students' classroom learning activities, encouraging students to exercise a critical voice about the quality of their learning, and linking students' classroom learning with their out-of-school experiences.

I asked Joanne to consider helping me with the trialling of the questionnaire. She agreed willingly to administer the questionnaire in several of her classes. With her consent, I visited her classes to observe students' learning activities and, later, she assisted me to organise volunteer students for interviews. For her research assistance, Joanne received an airfare to attend a national science education conference where she presented a paper on her own teacher-research activities.

Around the time that Joanne was writing the results chapter of her dissertation, I invited her to read my analysis of interview transcripts and questionnaire results. The account combined whole-class analyses with profiles of eight students selected according to their different responses to Joanne's teaching. I had given the students pseudonyms in accordance with a guarantee of confidentiality that I had given prior to the interviews.

In my role as supervisor of Joanne's action research study, I felt morally obliged to assist Joanne in gaining the most from the professional development process that lay at the heart of her research. It seemed to me that my own research report could contribute to her deepening understanding of the nature of her recent teaching innovations and their influence on her students' learning. I wanted to help her to continue moving forward in her professional development by realising that she, too, was morally obliged to continue asking herself difficult questions that would compel her to seek evidence of the need for continuous improvement in her teaching; questions such as: Have my teaching innovations contributed to the hostility displayed by 'troublesome' students?, To what extent might I have imposed unjustly my requirements for students to adopt radically new learning roles?, What are the inviolable 'rights' of students in relation to 'experimental' teaching?

I felt that my research report would serve to stimulate Joanne's critical thinking about her own partially complete analyses, particularly in relation to the need to account for disconfirming evidence and to qualify her somewhat ambitious claims about the efficacy of her teaching innovations. In wanting to share my draft research report with Joanne I was motivated also by a need to enrich the quality of my own research analyses which made claims about the usefulness of the questionnaire. One way that I might have worked towards achieving this goal was by incorporating into my analyses aspects of Joanne's perspective on her students' learning practices.

To my surprise, however, Joanne refused the invitation to read my research report. She stated adamantly that, because I had given guarantees to the

students to preserve their anonymity and because of the small number of students involved in the interviews, including two of four 'troublesome' students, it would be unethical for her to read accounts that she was likely to recognise.

I had mixed feelings about Joanne's response. On the one hand, I understood Joanne's viewpoint and appreciated that an ethical dilemma did indeed exist. On the other hand, I regretted having made a 'watertight' guarantee to the students that now seemed to be working against the interests of both Joanne and me, interests that seemed to transcend us and have a broader educational significance.

I argued somewhat forcefully with Joanne (as one might with a peer) that I could resolve this ethical dilemma by revisiting the students, showing them my analyses, and seeking their permission for me to share them with her. I was quite certain that the students would not find the analyses objectionable and that I could readily persuade them to agree with my proposal to share them with their teacher. If students did object then I was willing to respect their opinion and act accordingly. Joanne refused, however, to allow me to approach the students. Bearing in mind the strength of her feelings, I accepted her decision and put the matter aside.

Joanne's Perspective

Early in our student-supervisor relationship Philip asked me if I would be willing to trial a questionnaire that he had developed. I was happy to do so. I saw the questionnaire as serving Philip's research interests rather than mine. I had ample data from my own questionnaires and student interviews.

Prior to commencing my own study, I had sought permission from the students, their parents, the school principal, and my Head of Department to collect data from my students. I had been careful to assure everyone that all data were to be treated as confidential. I reassured the students that none of the data would be used to influence my assessment of them in the Bioethics unit. It was a straightforward matter, therefore, to administer Philip's questionnaire under the same conditions as my own.

When Philip then told me that he needed to interview some students about their responses in the questionnaire I was rather surprised. I worried about whether I had to obtain further permission from the school. This I did by asking my Head of Department. When organising students to be interviewed I reassured them (especially the troublesome students) that their interviews were totally confidential. I knew that would help Philip to obtain maximum data. Because they would see him as a neutral person he would have no power over them, in a school sense.

While I was writing my results chapter Philip asked me to read his research report that contained data from the student interviews. After considering his request, which would be useful in writing the results chapter, I refused. I felt that I couldn't possibly betray a student's confidentiality, no matter how much it might benefit my research. Teaching the course on Bioethics had heightened my sense of personal responsibility for my students' moral well-being. When Philip suggested that he could go back and get students' permission I had an image of them being pressured into an agreement whose implications they might not fully understand. They would have been disempowered without even knowing it had happened. I believed that this was an ethically incorrect way of conducting research, and wrote in my journal:

> I was and still am going through a moral stage in relation to educational research. I guess I am ultra-sensitive to the collection and use of data. (Some of this relates to my medical research background. We often collected specimens for unauthorised tests.) Students are not pawns and I don't believe they can give consent freely as they are unaware of the consequences. [Journal, Nov 1994]

It seems sensible to suggest that the easiest way of avoiding this type of conflict between a research supervisor and research student is to deny the supervisor the right to have a collaborative research agenda that implicates the student. Perhaps collaborative research unduly complicates the student-supervisor relationship, especially when the student is undertaking a personally challenging emancipatory action research study and is in need of the unqualified and unambiguous support of her supervisor. It could be argued that Philip's research agenda compromised the neutrality of his supervisory role and disabled him from adopting a disinterested and non-judgemental perspective from which to advise Joanne as she struggled with the emotional intensity of running against 'the grain' of the school's established culture.

On the other hand, it could be argued that, in the context of a student's emancipatory action research study, the supervisor's collaborative research agenda per se is not necessarily problematic. Rather, the problem of conflicting interests might have a more profound and beguiling source — the culture of Education — especially its self-propagating myths. What repressive cultural myths might Philip and Joanne have been perpetuating unknowingly in the mutual enactment of their interdependent social roles of research student and research supervisor, myths that distorted their relationship and that contributed to a perception of conflicting interests and unethical actions?

This question is one of the hallmarks of critical self-reflective thinking associated with the goal of emancipation. The writings of critical feminist scholars such as Patti Lather (1986) and Elizabeth Ellsworth (1992) helped us to answer the question. They argue that the repressive myth of 'rationalism' — a narrow framework for action that celebrates the logic and control of the expert while ignoring others' needs and emotions — has a major role in derailing emancipatory reforms in education by perpetuating relations of domination. In science and mathematics education, the myth of rationalism has been criticised severely for celebrating 'cold' reason and 'hard' control while delegitimating the important role of feelings, values and emotionality in establishing and maintaining communicative relationships between teacher and students (Pintrich, Marx & Boyle, 1993; Taylor, in press).

Looking through this conceptual 'lens' helps us to understand how the rationalism of Philip's concern for his own research agenda cast a cold shadow over his relationship with Joanne. The pre-eminence that Philip attached to the methodological rigour of his own research led him to make successive 'well-reasoned' requests of Joanne in a way that failed to acknowledge or pre-empt her growing concerns and doubts about his intentions and that did little to foster her trust in him or a perception that he cared about her. Rather, Philip tended to take for granted the assumption that the authority of his requests to survey Joanne's students and observe their classroom activities was sufficiently well-warranted (within his own research framework) that Joanne would need no other form of assurance about the legitimacy of his planned activities. In the absence of a rich communicative relationship, Philip tended to overlook Joanne's duty of care toward her own students (a sense of duty that had been heightened by her teaching concern with ethics) and to gloss over his duty of care toward Joanne, his own student.

Instead of disclosing the extent of his research agenda at the outset and inviting Joanne's critical commentary as a full collaborator, Philip chose somewhat naively to announce his research needs almost as they arose, thereby catching Joanne by surprise and reinforcing her perception of the independence of their individual research

activities. This independence became a gulf when Philip proferred his own research report and then offered to obtain the consent of Joanne's students for her reading of it. A rich communicative relationship could have legitimated a critical and empathetic examination of Joanne's concerns. In its absence, the perspectival nature of the issue of appropriate research ethics was clouded by feelings of distrust and a perceived lack of care and concern.

The myth of rationalism also has explanatory power in relation to the other major conflicts of interest that we have discussed already. During Joanne's initial struggle to understand her supervisor's constructivist perspective, Philip maintained a powerful commitment to his rationalist goal of autonomous student reasoning. However, the authority of his commitment remained unexamined and unquestioned in the absence of a dialogical discourse with his student and, consequently, overshadowed the authenticity of her communicative needs. Thus, the cold reason of Philip's strongly idealised (perhaps ideological?) commitment displaced a duty of care that might have better supported Joanne in her emotional struggle to challenge the authority of her own experiences as a teacher, student, and researcher while she transformed her own epistemology and tested its viability in her teaching.

In relation to supervising Joanne's research writing, Philip's unwavering commitment to his own set of academic standards for quality writing (bolstered by his long-term 'empowering' goal of preparing Joanne for subsequent Doctoral research) served to justify his silencing of Joanne's 'voice', an experience that she described in terms of feeling an increasing loss of ownership of her work. The hard control of Philip's unyielding grasp of his own theoretically-justified standards displaced his sense of moral accountability for Joanne's agency as a thinker and writer, and failed to enable him to address the root cause of her emotional distress. In the absence of a rich communicative relationship in which all knowledge claims are open to critical examination, including the question of appropriate standards, the supervisor and student defaulted to a traditional relationship in which the choice of standards was controlled by the authority of the 'expert'.

Looking through the conceptual 'lens' of the myth of rationalism provides an insightful view of the three major conflicts of interest that we have discussed above and helps us to understand the extent to which Philip's power and control as research supervisor might have prevailed unfairly (albeit unwittingly) over Joanne's teacher-researcher-student role.

Avoiding Relations of Domination

It was a critical event that sparked our inquiry and caused us to examine the hijacking of our intentions for an equitable partnership that we had agreed upon at the outset of our student-supervisor relationship. As a result of our inquiry we are confident that we understand better how Joanne came to feel disempowered and we are confident that we can recommend ways of preventing similar relationships from being caught up in the paradox described by the feminist scholar, Patti Lather:

> [H]ow to maximize the researcher's mediation between people's self-understandings (in light of the need for ideology critique) and transformative social action without becoming impositional. . . .This is the central paradox of critical theory and provides its greatest challenge. [Lather, 1986, p. 269]

We believe that one of the keys to unlocking this paradox lies in refining the critical constructivist perspective that framed Philip's supervisory role. Our inquiry revealed that, although Philips' supervisory actions were shaped by a perspective that recognised theoretically the importance of both communicative and emancipatory goals,

the latter tended to prevail as a referent for his role as supervisor. As a result, the goal of student empowerment was linked too closely with a rationalist approach to emancipation, an approach that eclipsed his perception of a need for an enriched communicative student-supervisor relationship. This proved to be particularly demoralising of Joanne at critical times during her endeavours to transform the epistemology of her own teaching and to complete related research activities.

In the context of the collaborative type of emancipatory action research in which we co-participated, we believe that the development of a rich communicative relationship between a research supervisor and research student is essential to the viability, vitality and quality of the research process. We feel that a research supervisor who wishes to support a student in the high-risk activity of emancipatory action research, and who wishes also to join the student in a collaborative research partnership, should assume responsibility for engaging the student in the explicit development of a communicative relationship regulated by the following set of standards that are applicable equally to both of them:

- an ongoing commitment to an empathetic, caring and trusting relationship that places *emotionality* on an equal footing with reason;

- an ongoing commitment to a *dialogical discourse* that aims at co-constructing mutual and respectful understandings based on standards of reciprocal action such as:
  - being willing to disclose and examine critically one's goals, interests, valued beliefs and standards of judgement; and
  - having the right to know and challenge the other's justification for their actions and judgements;

- an ongoing commitment to ensuring that a *meta-discourse* is readily available for discussing the state of health of the communicative relationship by allowing the (often implicit) rules of the discourse to become the subject of critical discussion.

The reciprocal nature of these standards means that the research supervisor who engages collaboratively with their student in a emancipatory action research study cannot feign value-neutrality and mask their interests behind the traditional standard of objectivity, a standard that seems well-suited to relationships governed by the myth of rationalism. On the other hand, by acknowledging the nature of their stakeholding the supervisor does not earn the right to privilege their own (considerable) authority, particularly in judging the quality of the student's work. Rather, the supervisor has a key responsibility to foster the student's own judgement-making capabilities about what quality control standards are most appropriate for regulating their own research activities.

We have made these recommendations in the spirit of fostering an equitable relationship between research students and their supervisors. But we feel that it is important that equity not be confused with equality. In the context of a collaborative type of emancipatory action research, equality is inappropriate because the student and supervisor bring to their educative relationship different types of expertise grounded in the authority of their distinctly different experiences. The principle of equity, however, aims to create a mutually valuable interdependency that eschews relations of domination while fostering an educative relationship of co-participatory teaching and learning.